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**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

Docket Number (Optional)

1324.70221

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on February 1, 2010

Signature James K. Folker

Typed or printed name James K. Folker

Application Number

10/813,613

Filed

03/30/2004

First Named Inventor

Shinpei Nagatani

Art Unit

2629

Examiner

Ma, Calvin

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

I am the

☐

applicant/inventor.

☐

assignee of record of the entire interest.

See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.  
(Form PTO/SB/96)

☒

attorney or agent of record. 37,538

Registration number \_\_\_\_\_

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attorney or agent acting under 37 CFR 1.34.

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February 1, 2010

Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required.  
Submit multiple forms if more than one signature is required, see below\*.

☒

\*Total of 1 forms are submitted.

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1324.70221



PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Shinpei Nagatani  
Serial No.: 10/813,613  
Conf. No.: 4370  
Filed: 3/30/2004  
For: ILLUMINATION DEVICE AND  
DISPLAY APPARATUS INCLUDING  
THE SAME  
Art Unit: 2629  
Examiner: Ma, Calvin

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Feb. 1, 2010   
Date Registration No. 37,538  
Attorney for Applicant(s)

**Pre-Appeal Brief Request for Review**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

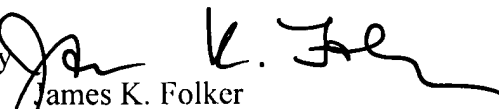
Dear Sir:

Applicants request a pre-appeal review of the outstanding final rejection of the pending claims in this Application based upon the attached remarks.

Respectfully submitted,  
GREER, BURNS & CRAIN, LTD.

February 1, 2010

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By   
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## Pre-Appeal Brief Request for Review

### Remarks

For the reasons set for the below, Applicants respectfully request the withdrawal of the §103 rejection of Claims 1-4, 27, and 34-39 as being unpatentable over United States Patent No. 6,496,236 to Cole et al. in view of United States Patent Application Publication No. 2002/0001184 to Kim et al. Of the pending claims, Claims 1, 36 and 37 are independent claims.

**I. Independent Claim 1 and Its Associated Dependent Claims Should be Allowed on Pre-Appeal Because the Examiner has Failed to Make a Prima Facie Case of Obviousness.**

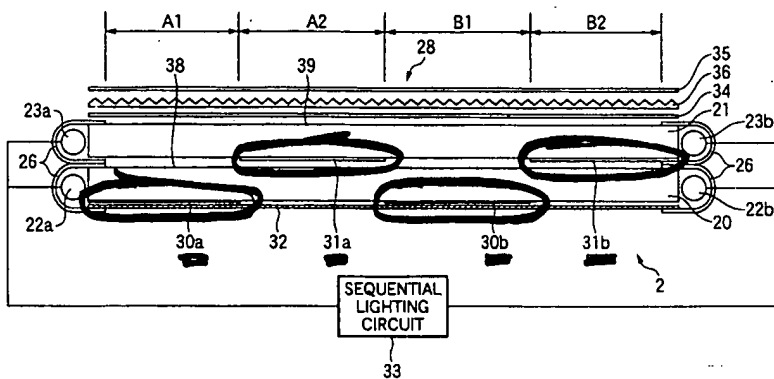
A *prima facie* case of obviousness requires that all of the claim limitations are taught or suggested by the prior art. See e.g., *Ex parte John W. George*, Bd. Pat. App. Int., Appeal No. 2009-011132, September 14, 2009 (“It is elementary that to support an obviousness rejection, all of the claim limitations must be taught or suggested by the prior art applied (see *In re Royka*, 490 F.2d 981, 984-85 (CCPA 1974)) and that all words in a claim must be considered in judging the patentability of that claim against the prior art (*In re Wilson*, 424 F.2d 1382, 1385 (CCPA 1970)).” (citations in original)).

However, in the present case, the Examiner has not shown that all of the claimed features are disclosed or suggested in the cited references, as set forth below.

A. The cited references fail to disclose or suggest the light diffusion layers, as this feature is defined in independent Claim 1

One example of an embodiment of the invention defined in Claim 1 is shown in Applicants’ Figures 1 and 2, which includes, among other things, a plurality of optical waveguides (20 and 21) that each include a plurality of separate light diffusion reflecting layers thereon. More specifically, as shown below, optical waveguide 20 includes light diffusion reflecting layers 30a and 30b thereon (as circled below), which, as can be seen in marked-up Figure 2, are separate from each other.

FIG.2 (MARKED-UP)



Similarly, optical waveguide 21 includes light diffusion reflecting layers 31a and 31b thereon, which, as can be seen in the marked-up version of Figure 2 above (where layers 31a and 31b are also circled), are also separate from each other. Thus, as defined in independent Claim 1, each optical waveguide includes a plurality of separate light diffusion reflecting layers thereon.

In the Advisory Action, the Examiner appeared to equate light pipes 72 and 74 of Figure 3B of the Cole et al. reference with the claimed optical waveguides. Further, the Examiner also asserted in the Advisory Action that each pipe “has a plurality of surface which have a refractive property [that] would serve as a plurality of separate light diffusive and reflection surfaces” (emphasis added).

Initially, Applicants note that independent Claim 1 (unlike independent Claims 36 and 37) does not define “separate light diffusion reflecting surfaces” (emphasis added), but instead defines “separate light diffusion reflecting layers” (emphasis added). Applicants respectfully submit that a “surface” is a different concept than a “layer.” In Figure 3B of the Cole et al. reference, reflector 28 is the element that most closely resembles a *layer*. However, as can be seen from a review of Figure 3B of Cole et al., reflector 28 does not read on the “separate light diffusion reflecting layers” defined in independent Claim 1 because, *inter alia*, reflector 28 is only a single layer, as opposed to being “a plurality of separate . . . layers,” as defined in independent Claim 1. Additionally, reflector 28 of Cole et al. is only on one of the light pipes, as opposed to being on “each” of the optical waveguides, as also defined in independent Claim 1. Finally, Applicants respectfully submit that the Kim et al. reference does not remedy these deficiencies, nor was it relied upon as such.

Thus, for at least the reasons set forth above, Applicants respectfully request the withdrawal of this §103 rejection of independent Claim 1 and associated dependent Claims 2-4, 27, 34 and 35.

**II. Independent Claims 1, 36 and 37, and Their Associated Dependent Claims, Should be Allowed on Pre-Appeal Because the Examiner has Failed to Make a *Prima Facie* Case of Obviousness.**

A. The Cole et al. reference does not disclose or suggest an illumination device that includes, *inter alia*, “a plurality of optical waveguides each including a plurality of separate light diffusion reflecting layers thereon” (emphasis added), as defined in independent Claim 1.

Applicants respectfully submit that the device of the Cole et al. reference lacks the plurality of separate light diffusion layers on each optical waveguide, as recited in independent Claim 1. In the Final Office Action, the Examiner equated light pipes 76 and 78 of Figure 3C of the Cole et al. reference with the claimed optical waveguides, and he equated reflectors 26 and 28 with the claimed light diffusion reflecting layers. However, even assuming *arguendo* that the light pipes 76 and 78 were equivalent to the claimed optical waveguides and that the reflectors 26 and 28 were equivalent to the claimed light diffusion reflecting layers, Claim 1 is still not satisfied. More specifically, Figure 3C of Cole et al. shows only a single reflector 26 associated with light pipe 26. Accordingly, light pipe 26 of Cole et al. does not satisfy the language of Claim 1 that states that each of the plurality of optical waveguide includes a plurality of separate light diffusion reflecting layers thereon.

Thus, for at least the reasons set forth above, Applicants respectfully request the withdrawal of this §103 rejection of independent Claim 1 and associated dependent Claims 2-4, 27, 34 and 35.

B. The Cole et al reference does not disclose or suggest an illumination device that includes, *inter alia*, “a plurality of optical waveguides each including . . . a light emission surface for emitting the diffused and reflected light, and a plurality of light-emitting areas each corresponding to a location in which one of the light diffusion reflecting layers [surfaces, for Claims 36 and 37] is formed and which light emitting areas are separated from each other, the plurality of optical waveguides being stacked so that the

plurality of light emitting areas are disposed almost complementarily and adjacent each other when viewed in a direction perpendicular to the light emission surface” (emphasis added), as defined in independent Claims 1, 36 and 37.

Applicants respectfully submit that the combination of Cole et al. and Kim et al. also lacks other details of the optical waveguides and light diffusion reflecting layers (or surfaces), as set forth above and as defined in independent Claims 1, 36 and 37. Referring again to Applicants’ marked-up Figure 2 (above), one example of an embodiment that includes the relevant features is shown. More specifically, marked-up Figure 2 shows a plurality of optical waveguides (20 and 21) each including . . . a light emission surface (surface 38 for waveguide 20 and surface 39 for waveguide 21) for emitting the diffused and reflected light, and a plurality of light-emitting areas (A1, B1, A2, B2) each corresponding to a location in which one of the light diffusion reflecting layers/surfaces (areas A1, B1, A2, B2 correspond to layers/surfaces 30a, 30b, 31a and 31b, respectively) is formed and which light emitting areas (A1, B1, A2, B2) are separated from each other (A1 and B1 for 30a and 30b are separated and A2 and B2 for 31a and 31b are separated), the plurality of optical waveguides (20, 21) being stacked so that the plurality of light emitting areas (A1, B1, A2, B2) are disposed almost complementarily and adjacent each other when viewed in a direction perpendicular to the light emission surface (38, 39).

In contrast, the device of the Cole et al. patent lacks the features of independent Claims 1, 36 and 37 discussed immediately above. For example, lightpipe 76 of Figure 3C of Cole et al. does not include a plurality of separate light diffusion layers/surfaces, so it also fails to include a plurality of corresponding light emitting areas that are separated from each other (such as light emitting areas A2 and B2 of Applicants’ Figure 2). Instead, lightpipe 76 of Cole et al. has a single reflector 76 that forms a single, continuous, corresponding light emitting area, with no separation. Similarly, lightpipe 78 also fails to include a plurality of separate light diffusion layers/surfaces and a plurality of corresponding light emitting areas that are separated from each other (such as light emitting areas A1 and B1 of Applicants’ Figure 2). Instead, lightpipe 78 of Cole et al. also only defines a single, continuous light emitting area with no separation.

Further, with regard to Figure 3B of the Cole et al. reference, Applicants respectfully submit that this embodiment also fails to disclose or suggest the features at issue. For example, even assuming *arguendo* that each of the outer surfaces of light pipes 72 and 74 of

Figure 3B of Cole et al. could be considered as a separate light diffusion reflecting surface, other features of independent Claims 36 and 37 are not satisfied. More specifically, the upper surface of light pipe 72 is not "separate" from the adjacent side surfaces light pipe 72, for example. Instead, the upper surface of light pipe 72 contacts the side surfaces at the corners. The same holds true for light pipe 74. As another example, the Examiner has not shown how Figure 3B of the Cole et al. reference includes optical waveguides "being stacked so that the plurality of light emitting areas are disposed almost complementarily and adjacent each other when viewed in a direction perpendicular to the light emission surface," as defined in independent Claims 1, 36 and 37.

Finally, the Kim et al. reference does not remedy these deficiencies, nor was it relied upon as such. Accordingly, for these reasons also, Applicants respectfully request the withdrawal of this §103 rejection of independent Claims 1, 36 and 37 and associated dependent Claims 2-4, 27, 34, 35, 38 and 39.

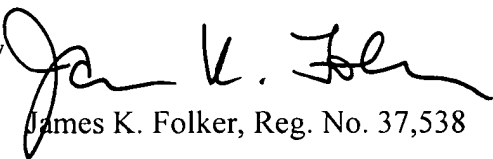
### **III. Conclusion**

Applicants ask that this pre-appeal review request be sustained, and that the application allowed. As the sole §103 rejection has been shown to have been in error, the pendency of this application should be completed with issuance of Notice of Allowance.

February 1, 2010

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